

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

Claim 1 (Currently amended): A method for identifying a location of a road segment ~~using a first digital map on which the road segment is represented by a first road shape and a second digital map on which the road segment is represented by a second road shape which has a different shape from the first road shape,~~ in digital maps, each map containing errors inherent in the reduced-scaling of the digital maps and/or depending on the kind of the digital maps, the digital maps including a first digital map and a second digital map, the second digital map showing the road segment at a different location from the first digital map due to the errors, the first digital map being stored in a transmitting apparatus, the second digital map being stored in a receiving apparatus, the method comprising the steps of:

creating location information based on the first digital map by the transmitting apparatus, the location information including: a string of coordinates of points which represents ~~the a~~ a first road shape of the road segment on the first digital

map, and attribute information about the points or the road segment;

transmitting the location information from the transmitting apparatus to the receiving apparatus;

receiving the location information by the receiving apparatus;~~and~~

selecting from one or more road shapes on the second digital map a second road shape which is most closely matched with the first road shape specified by the received location information; and

~~performing matching of the string of coordinates of points included in the received location information with the second road shape on the second digital map by using the string of coordinates of the points and the attribute information included in the location information, to identifying~~ the location of the road segment on the second digital map as the location of the second road shape.

Claims 2-5 (Cancelled):

Claim 6 (Previously presented): The method according to claim 1, wherein the attribute information includes at least one

information item chosen from a group consisting of road type code, road number, toll highway code, number of traffic lanes, regulation information, road width, number of connecting links to a crossing node, and connection angle of each connecting link to a crossing node.

Claims 7-11 (Cancelled):

Claim 12 (Currently amended): A transmitting apparatus for providing location information to a receiving apparatus for identifying a location of a road segment in digital maps, each map containing errors inherent in the reduced-scaling of the digital maps and/or depending on the kind of the digital maps, the digital maps including a first digital map and a second digital map, the second digital map showing the road segment at a different location from the first digital map due to the errors, the transmitting apparatus comprising:

[[a]]the first digital map on which a road segment is represented by a first road shape;

an information generator that generates, based on the first digital map, location information including: a string of coordinates of points which represents ~~the~~ a first road shape of

the road segment on the first digital map, and attribute information about the points or the road segment; and

a transmitter that transmits the location information from the transmitting apparatus to ~~a-the receiving apparatus having a second digital map on which the road segment is represented by a second road shape which has a different shape from the first road shape.~~

Claim 13 (Currently amended): A receiving apparatus for receiving location information from a transmitting apparatus for identifying a location of a road segment in digital maps, each map containing errors inherent in the reduced-scaling of the digital maps and/or depending on the kind of the digital maps, the digital maps including a first digital map and a second digital map, the second digital map showing the road segment at a different location from the first digital map due to the errors, the receiving apparatus comprising:

a receiver that receives the location information including: a string of coordinates of points which represents a first road shape of ~~[[a]]the road segment on [[a]]the first~~ digital map, the first digital map being stored in a transmitting apparatus, and attribute information about the

points or the road segment ~~from the transmitting apparatus~~
~~having the first digital map;~~

~~[[a]]the second digital map on which the road segment is~~
~~represented by a second road shape which has a different shape~~
~~from the first road shape; and~~

~~an identifying unit that performs matching of the string of~~
~~coordinates of points included in the received location~~
~~information with the second road shape on the second digital map~~
~~by using the string of coordinates of the points and the~~
~~attribute information included in the location information,~~
~~selects from one or more road shapes on the second digital map a~~
~~second road shape which is most closely matched with the first~~
~~road shape specified by the received location information and to~~
~~identify identifies the location of the road segment on the~~
~~second digital map as the location of the second road shape.~~

Claims 14 and 15 (Cancelled):

Claim 16 (Currently amended): A system for identifying a location
of a road segment ~~using a first digital map on which the road~~
~~segment is represented by a first road shape and a second~~
~~digital map on which the road segment is represented by a second~~

~~road shape which has a different shape from the first road~~
shape, in digital maps, each map containing errors inherent in
the reduced-scaling of the digital maps and/or depending on the
kind of the digital maps, the digital maps including a first
digital map and a second digital map, the second digital map
showing the road segment at a different location from the first
digital map due to the errors, the first digital map being
stored in a transmitting apparatus, the second digital map being
stored in a receiving apparatus, the system comprising:

the transmitting apparatus that includes:

the first digital map;

an information generator that generates, based on the first
digital map, location information including: a string of
coordinates of points which represents ~~the~~a first road shape of
the road segment on the first digital map, and attribute
information about the points or the road segment; and

a transmitter that transmits the location information to
the receiving apparatus; and the receiving apparatus that
includes:

a receiver that receives the location information from the
transmitting apparatus;

the second digital map; and

~~an identifying unit that performs matching of the string of coordinates of points included in the received location information with the second road shape on the second digital map by using the string of coordinates of the points and the attribute information included in the location information, selects from one or more road shapes on the second digital map a second road shape which is most closely matched with the first road shape specified by the received location information and to identify~~ identifies the location of the road segment on the second digital map as the location of the second road shape.

Claim 17 (Previously presented): The transmitting apparatus according to claim 12, wherein the attribute information includes at least one information item chosen from a group consisting of road type code, road number, toll highway code, number of traffic lanes, regulation information, road width, number of connecting links to a crossing node, and connection angle of each connecting link to a crossing node.

Claim 18 (Previously presented): The receiving apparatus according to claim 13, wherein the attribute information includes at least one information item chosen from a group consisting of road type

code, road number, toll highway code, number of traffic lanes, regulation information, road width, number of connecting links to a crossing node, and connection angle of each connecting link to a crossing node.

Claim 19 (Previously presented): The system according to claim 16, wherein the attribute information includes at least one information item chosen from a group consisting of road type code, road number, toll highway code, number of traffic lanes, regulation information, road width, number of connecting links to a crossing node, and connection angle of each connecting link to a crossing node.

Claims 20-21 (Cancelled):